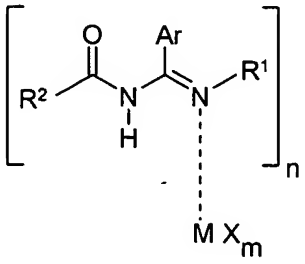
AMENDMENTS TO THE CLAIMS

1. (Original) An N'-substituted N-acylamidine-transition metal complex of the general formula I



I

where

M is a transition metal selected from the group of the metals Ni, Cu, Ru, Rh, Pd, Os, Ir and Pt

X is Cl, Br, triflate, methanesulfonate or p-toluenesulfonate

m is 0, 1 or 2,

n is 1, 2 or 3

and the radicals are defined as follows:

R^1, R^2 are each a straight-chain, branched or cyclic hydrocarbon radical having from 1 to 20 carbon atoms which may be mono- or polyunsaturated, an aromatic radical having from 6 to 14 ring members which may be bonded directly or via a C_1- to C_6-alkyl or C_2- to C_6-alkylene group, and the radicals mentioned may bear one or more substituents selected from the group of C_1- to C_6-alkyl, C_1- to C_4-haloalkyl, OR^3, NR^4R^5, $COOR^6$, $Si(R^7)_3$, $Si(R^7)_2R^8$, halogen, aryl, C_3-C_8-cycloalkyl,

R^3, R^6, R^8 are each independently C_1- to C_{12}-alkyl, C_7- to C_{12}-aralkyl, C_6- to C_{10}-aryl, C_3- to C_8-cycloalkyl, C_3- to C_8-cycloalkyl in which one CH_2 group has been replaced by O, NH or NR^9,

R^4, R^5, R^{10}, R^{11} are each independently hydrogen, straight-chain or branched C_1- to C_{12}-alkyl, C_7- to C_{12}-aralkyl, C_6- to C_{10}-aryl, C_3- to C_8-cycloalkyl or C_3- to C_8-cycloalkyl in which one CH_2 group has been replaced by O, NH or NR^9, and R^4 and R^5 and/or R^{10} and R^{11} may each together be $-(CH_2)_y-$, where y is an integer from 4 to 7;

R^7, R^9 are each independently straight-chain or branched C_1- to C_{12}-alkyl or C_7- to C_{12}-aralkyl,

Ar is C_6-C_{10}-aryl or hetaryl having from 5 to 10 ring members, and the radicals mentioned may be substituted by C_1- to C_6-alkyl, C_1- to C_4-haloalkyl, $NR^{10}R^{11}$, $COOR^6$, $Si(R^7)_3$, $Si(R^7)_2R^8$, OR^3 and/or halogen.

2. (Original) A transition metal complex of the formula I as claimed in claim 1 where M is a transition metal selected from the group of Ru, Rh, Os, Ir, Pd and Pt.

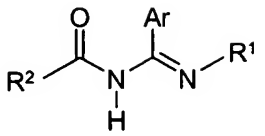
3. (Original) A transition metal complex of the formula I as claimed in claim 1 where M is Pd or Pt and m and n are each 2.

4. (Currently amended) A transition metal complex of the formula I as claimed in claim 1, ~~any of claims 1 to 3~~ where

R^1 and R^2 are each branched or unbranched C_1- to C_{12}-alkyl, C_7- to C_{12}-aralkyl, C_6- to C_{10}-aryl, and the radicals mentioned may be substituted by from one to three halogen atoms and/or one or two C_1-C_6-alkyl, trifluoromethyl and/or C_1- to C_6-alkoxy substituents, and

Ar is C_6-C_{10}-aryl or hetaryl having 5 or 6 ring members, and the radicals mentioned may be substituted by one or more C_1- to C_6-alkyl, C_1- to C_6-alkoxycarbonyl, C_1- to C_6-alkoxy, trialkylsilyl or diarylalkylsilyl and/or trifluoromethyl substituents and/or halogen.

5. (Currently amended) A process for preparing N'-substituted N-acylamidine-transition metal complexes of the general formula I as claimed in claim 1, ~~any of claims 1 to 4,~~ which comprises dissolving an N'-substituted N-acylamidine ligand of the formula III



III

and a transition metal compound containing the ~~desired~~ central atom M according to formula I in an organic solvent or in a mixture of different organic solvents and crystallizing the N'-substituted N-acylamidine-transition metal complex by adding a further solvent different to the solvent or solvent mixture used initially.

6. (Original) A process as claimed in claim 5, wherein the first solvent used is a halogenated or aromatic solvent or a mixture of different halogenated or aromatic solvents, and an ethereal solvent or solvent mixture is added for crystallization.

7- 9 cancelled

10 (New) A catalyst which comprises the N'-substituted N-acylamidine-transition metal complex of the formula I as claimed in claim 1.

11. (New) The catalyst as claimed in claim 10 for transition metal-catalyzed coupling reactions in which at least one new bond is formed between two carbon atoms.

12. (New) An olefination process which comprises using the catalyst as claimed in claim 10 for transition metal-catalyzed olefination, alkynylation, arylation or diaryl coupling reactions.

13. (New) An alkynylation process which comprises using the catalyst as claimed in claim 10.

14. (New) An arylation process which comprises using the catalyst as claimed in claim 10.

15. (New) A diaryl coupling reaction process which comprises using the catalyst as claimed in claim 10.